

## **AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

### **LISTING OF CLAIMS:**

1. (currently amended): A system for, comprising:  
an array of samples, the samples of the array of samples being provided in an  
arbitrary pattern; and  
an ~~An~~ apparatus for analysing at least one sample in the ~~an~~ array of samples, the  
apparatus comprising:
  - (a) an image recorder ~~that records~~ for recording at least a portion of the arbitrary  
pattern of the array of samples and the position of the at least one sample relative to the other  
samples in the array;
  - (b) a dispensing device ~~that applies~~ for applying a reagent or sequence of reagents  
to the at least one sample *in situ*;
  - (c) an analyser ~~that analyses~~ for analyzing the at least one sample for a reaction to  
or with the reagent or the sequence of reagents; and
  - (d) a chemical dispensing control unit for controlling ~~that controls~~ the dispensing  
device, which applies the reagent or the sequence of reagents to the at least one sample  
according to the position of the at least one sample relative to the other samples in the array  
determined by the image recorder.
2. (currently amended): The system ~~apparatus~~ according to claim 1 further including a  
recorder of the analysis results obtained by the analyser.

3. (currently amended): The ~~system~~apparatus according to claim 1 wherein the image recorder is selected from the group consisting of scanner, photodetector, and charge-coupled device.

4. (currently amended): The ~~system~~apparatus according to claim 1 wherein the dispensing device is a chemical printer adapted to apply one or more reagents to the at least one sample.

5. - 10. (canceled).

11. (currently amended): The ~~system~~apparatus according to claim 1 wherein the analyser is selected from the group consisting of liquid chromatograph, photoelectrical detector, photochemical detector, laser detector, radiochemical detector, and mass spectrometer.

12. (currently amended): The ~~system~~apparatus according to claim 1 wherein the chemical dispensing control unit is a computer programmed to control the dispensing device.

13. (currently amended): The ~~system~~apparatus according to claim 1, further comprising a semi-solid or substantially solid support, wherein the array of samples is on the semi-solid or substantially solid support.

14. (currently amended): The system ~~A combination, comprising:~~  
~~the apparatus~~ according to claim 13, and  
~~the at least one sample~~, wherein the at least one sample analysed has an area less than  
100 mm<sup>2</sup>.

15. (currently amended): The system ~~A combination, comprising:~~  
~~the apparatus~~ according to claim 13, and  
~~the at least one sample~~, wherein the at least one sample analysed has an area less than 50  
mm<sup>2</sup>.

16. (currently amended): The system ~~A combination, comprising:~~  
~~the apparatus~~ according to claim 13, and  
~~the at least one sample~~, wherein the at least one sample analysed has an area of 1 to 10  
mm<sup>2</sup>.

17. (currently amended): The system ~~apparatus~~ of claim 1 wherein the dispensing  
device is a jetting device.

18. (currently amended): The system ~~apparatus~~ of claim 1 wherein the analyser is a  
MALDI-TOF spectrometer or LDI-TOF mass spectrometer.

19. (currently amended): The ~~system~~ apparatus of claim 1 wherein the image recorder is an image acquisition system comprising a digital camera and a computer.

20. (canceled).

21. (currently amended): The ~~system~~ apparatus of claim 1 wherein the image recorder is a charge-coupled device.

22- 24. (canceled).

25. (currently amended): The ~~system~~ apparatus according to claim 4 wherein the chemical printer is controlled by a program.

26. (currently amended): The ~~system~~ apparatus according to claim 1 wherein the image recorder comprises a charge-coupled device.